

subsp. *microphyllum* Lange, l. c. 91 (1880). *Myrtillus uliginosa*, var. *microphylla* (Lange) Simmons, Vasc. Pl. Ellesmald. 37 (1906). *M. uliginosa*, var. *pubescens* (Lange) Porsild, Meddel. om. Grönl. 1. 381 (1912).

Writers on Greenland plants maintain var. *pubescens* Lange (not *V. pubescens* Wormsk.) as a good variety, but southward the plants with glabrous and with more or less minutely pubescent foliage do not seem to be satisfactorily separable. In Newfoundland and on the mountains southward they are freely intermingled and can be separated only by a purely mechanical sorting of the two tendencies.

GRAY HERBARIUM

REPORTS ON THE FLORA OF THE BOSTON DISTRICT,—XXXVIII.

THIS report includes a series of rough-fruited plants which have been introduced into Massachusetts, mainly in wool. These plants have come up as waifs, mostly around woolen mills. Some of them, like *Echium vulgare*, have been real introductions, and have persisted and spread in enough places to become a permanent part of our flora. Most of them, coming to us from the West, from South America, and from Europe and Asia, have not found conditions here favorable to reproduction. No Australian plant has yet been reported, but the rest of the wool-growing world is well represented.

It is interesting to note that these waifs are not found in the shoe manufacturing towns of Massachusetts. Their favorite haunt seems to be the country about some of the smaller woolen mills, where the wool waste has been spread on the land, instead of being dumped and burned, as is done in the larger places. Many waifs like these have already been reported in other families, especially *Leguminosae* and *Geraniaceae*.

The committee has been fortunate in having access to the W. P. Alcott collection of these plants at the Peabody Academy of Science in Salem. The committee wishes especially to express appreciation of the assistance given by Mr. J. F. Macbride and Mr. I. M. Johnston in the identification of some of the difficult species.

CONVOLVULACEAE.

CONVOLVULUS.

C. ARVENSIS L. Waste places and grassland, occasional.

C. sepium L. Meadows and moist thickets, common.

C. sepium L., var. *pubescens* (Gray) Fernald. Seashore dunes and thickets, common.

CUSCUTA.

C. Cephalanthi Engelm. On *Decodon* and *Impatiens*, Furnace Pond, Pembroke (*C. H. Knowlton & J. R. Churchill*, Sept. 6, 1920).

C. compacta Juss. In wet places, parasitic on various shrubs; Tewksbury, Hudson, Waltham, Wellesley, Natick, Needham and southward.

C. EPILINUM Weihe. From a flaxfield, Topsfield (Herb. J. A. Lowell, no date). Specimen in herb. Bos. Soc. Nat. Hist.

C. Gronovii Willd. Wet soil, parasitic on coarse herbs, sometimes on shrubs; common throughout.

C. pentagona Engelm. (*C. arvensis* Beyrich of Gray's Manual, 7th ed. See *Am. Journ. Sci.* xliii. 340, t. 6, figs. 22-4, 1842.) Abundant on herbs, sandy shores of Winter Pond, Winchester and Massapoag Pond, Sharon; also (waif?) Hillside Ave., Cambridge; rocky woods, climbing *Helianthus divaricatus*, Blue Hill, Canton (*N. T. Kidder*, Aug. 11, 1919).

[*C. trifolia* Babgt. Reported from Winchester on red clover, by A. V. Osmun in *RHODORA*, v. 291, 1904. Specimen not available for examination.]

IPOMOEA.

I. COCCINEA L. By railway, Newton (*F. W. Grigg*, Sept. 5, 1896).

I. COCCINEA L., var. *hederifolia* (L.) Gray. Spontaneous on dumps along Charles River near Mt. Auburn (*B. L. Robinson*, Aug. 22, 1897; *W. P. Rich*, Aug. 28, 1897).

I. HEDERACEA Jacq. Little Canada dump, Lowell (*C. W. Swan*, Sept. 16, 1884); one plant, spontaneous in yard, Newton (*F. W. Grigg*, Oct. 5, 1911); also in Boston, according to *W. P. Rich* in *RHODORA*, x. 153, 1908.

I. LACUNOSA L. Little Canada dump, Lowell (*C. W. Swan*, Sept. 11, 1884). Specimen in herb. N. E. Botanical Club.

I. PURPUREA (L.) Roth. Gardens and waste places, occasional.

(Two other species listed by Dr. C. W. Swan in Dame & Collins, Fl. Middlesex Co., 77, 1888, are poor specimens, probably hybrids, impossible to identify exactly.)

POLEMONIACEAE.

GILIA.

G. INCONSPICUA Dougl. Woolwaste, N. Chelmsford (*W. P. Alcott*, June 23, 1879). Specimen in herb. Peabody Acad. Sci. Adventive from California.

G. LEUCOCEPHALA Gray. Woolwaste, N. Chelmsford (*W. P. Alcott*, May, 1879). Specimen in herb. Peabody Acad. Sci. Adventive from California.

G. MULTICAULIS Benth. Dump, West Cambridge (*M. L. Fernald & B. Long*, Aug. 28, 1913). Specimen in herb. N. E. Botanical Club. Native of California.

G. TRICOLOR Benth., var. *LONGIPEDICELLATA* Greenman in Deane, *RHODORA*, vi. 154, 1904. On wool refuse, Lawrence, June 14, 1900, *John A. Collins, Jr.* Originally described from Mr. Collins's specimen, now in the Gray Herbarium. The variety is now known also from California, whence it was doubtless introduced. Reported in *RHODORA*, iii. 92, 1901, as *G. androsacea* Steud.

PHLOX.

P. PANICULATA L. Persistent or escaped from gardens at a few places.

P. SUBULATA L. Common in old cemeteries and gardens; frequently escaped from cultivation in sandy soil.

POLEMONIUM.

P. OCCIDENTALE Greene. One plant, border of pond, E. Gloucester, July, 1914. Specimen in herb. W. Deane. Adventive from Colorado and California.

HYDROPHYLLACEAE.

ELLISIA.

E. NYCTELEA L. Border of Parkway, Everett (*W. P. Rich*, June 3, 1902). Specimen in herb. N. E. Botanical Club.

HYDROPHYLLUM.

H. VIRGINIANUM L. Dedham (?) (*E. H. Hitchings*, September, 1883). Purgatory Swamp, Norwood (*N. T. Kidder*, June 9, 1883); escaped in open woods, Milton (*N. T. Kidder*, June 20, 1917).

PHACELIA.

P. BRACHYLOBA Gray. Woolwaste, N. Chelmsford (*W. P. Alcott*, 1878); S. Boston flats (*C. E. Perkins*, June 25, 1879). A waif from California.

P. MAGELLANICA (Lam.) Cov. Woolwaste, N. Chelmsford (*W. P. Alcott*, 1878). Specimen in herb. Peabody Acad. Sci. Adventive from western America.

P. MINOR (Harvey) Thell., var. *WHITLAVIA* (Gray) Macbride. Woolwaste, N. Chelmsford (*W. P. Alcott*, 1878). Specimen in herb. Peabody Acad. Sci. A waif from California.

P. TANACETIFOLIA Benth. Woolwaste, N. Chelmsford (*W. P. Alcott*, June 10, 1879); spontaneous in garden, Newton (*Helen E. & F. W. Grigg*, July 24, 1892). A waif from California or northward.

[No specimen is available of Dr. T. Morong's *P. congesta* Hook. reported from Cambridge in Dame & Collins, Fl. Middlesex Co. 76, 1888.]

BORAGINACEAE.

AMSINCKIA.

A. BARBATA Greene. (*A. intermedia* Fisch. & Meyer in Dame & Collins, Fl. Middlesex Co., 75, 1888. See J. F. Macbride, in *RHODORA*, xviii. 27, 1916.) Chase's woolen mill, Lowell (*Miss M. Swan*, June 30, 1880). Specimen in herb. N. E. Botanical Club. Adventive from Pacific coast.

A. DOUGLASIANA DC. Woolwaste, N. Chelmsford (*W. P. Alcott*, 1878). Specimen in herb. Peabody Acad. Sci. Native of California.

A. MENZIESII (Lehm.) Nels. & Macbride. Abandoned henyard, Sherborn (*Miss M. L. Loomis*, June 10, 1919). Specimen in herb. Gray. Native of western United States and adjacent Canada.

ANCHUSA.

A. AZUREA Mill. (*A. italica* Retz.) Vacant lot near South Ferry, E. Boston (*Dr. Franklin Dexter*, July 28, 1917; July 15, 1918). "In 1917 the field was blue with it. In 1918 the field was yellow with

mustard, and the second specimen was secured with difficulty." Specimen in herb. N. T. Kidder. Native of Mediterranean region.

A. OFFICINALIS L. See RHODORA, xviii. 50–51, 1916. Waste land, rather common in Fenway district of Boston since 1897; dump area, Cambridge (*R. A. Ware & F. W. Grigg*, Oct. 11, 1919); W. Cambridge (*F. S. Collins*, Aug. 20, 1911).

ASPERUGO.

A. PROCUMBENS L. Adventive in waste land; Newburyport, Salem, Malden, Somerville, S. Boston.

BORAGO.

B. OFFICINALIS L. Persistent in an old garden at Danvers (*J. H. Sears*, Aug. 10, 1904); Lowell (*J. A. Lowell*, 1848). Introduced from southern Europe or western Asia for its handsome flowers.

CRYPTANTHA.

C. INTERMEDIA (Gray) Greene. Woolwaste, N. Chelmsford (*W. P. Alcott*, 1878). Specimen in herb. Peabody Acad. Sci. Native of California and adjacent Mexico.

CYNOGLOSSUM.

(*C. boreale* Fernald. There is a specimen in the herbarium of the Boston Society of Natural History with the indefinite label "Boston, U. S. A., 1822. Rec'd from Dr. Boott, 11 Dec. 1822.")

C. MICROGLOCHIN Benth. Rubbish heap, Cambridge (*W. Deane*, Sept. 24, 1884). Specimen in herb. W. Deane. Native of the western Himalaya Mts.

C. OFFICINALE L. Waste places, occasional west and north of Boston, especially near woolen mills.

ECHIUM.

E. AUSTRALE Lam. About a dump, Cambridge (*M. L. Fernald & Bayard Long*, Aug. 28, 1913). Specimen in herb. N. E. Botanical Club. Native in the Mediterranean region.

E. VULGARE L. Waste places especially near woolen mills; frequent west and north of Boston, also at Brockton.

HELIOTROPIUM.

H. ANCHUSAEFOLIUM Poir. Vacant lots, Huron Ave., Cambridge (*E. F. Williams*, Sept. 3, 1910). Specimen in herb. N. E. Botanical

Club. Weed in garden, Milton (*N. T. Kidder*, Oct. 12, 1883, to date). Specimen in herb. *N. T. Kidder*. Native of Argentina.

H. EUROPAEUM L. Woolwaste, Graniteville, Westford (*F. Nickerson*, no date); rubbish heap, Cambridge (*W. Deane*, Sept. 26, 1884); weed of years' standing in Botanical Garden, Cambridge (*R. Cameron*, Sept. 16, 1918).

H. INDICUM L. Rubbish heap, Cambridge (*W. Deane*, Oct. 5, 1884). Specimen in herb. *W. Deane*. Native of the Old World Tropics.

LAPPULA.

L. ECHINATA Gilib. Waste ground especially near woolen mills; frequent, especially north and west of Boston.

L. virginiana (L.) Greene. Moist shady places, frequent from Milton and Framingham northward.

LITHOSPERMUM.

L. ARVENSE L. Dry soil, frequent.

L. LATIFOLIUM Michx. Adventive at Middleton (*A. S. Pease*, July 12, 1902). Specimen in herb. *N. E. Botanical Club*.

LYCOPSIS.

L. ARVENSIS L. Introduced in cultivated soil, Essex and Ipswich (*Wm. Oakes*, no date); Georgetown (*Mrs. C. N. S. Horner*, July 22, 1882); Lowell (*F. Nickerson*, no date); about the Botanic Garden, *wild* but hardly naturalized, Cambridge (*E. Tuckerman, Jr.*, no date).

MYOSOTIS.

M. arvensis (L.) Mill. Open woods and grassland, rare.

M. laxa Lehm. Swamps and wet places, frequent.

M. MICRANTHA Pallas. Adventive in dry soil at Nahant, Revere, Weston and Milton.

M. SCORPIOIDES L. Brooks and swamps, occasional; usually very abundant where found.

M. SYLVATICA Hoffm. Waif at edge of lawn, Adams Street, Milton (*N. T. Kidder*, June 12, 1920). Native of the north temperate region.

M. virginica (L.) B. S. P. Dry soil, common.

SYMPHYTUM.

S. ASPERUM Lepechin. See J. F. Macbride, *RHODORA*, xviii. 23-5, 1916. Salem (*J. H. Sears*, June 10, 1904); Andover (*A. S. Pease*, July 6, 1901); Sherborn (*Miss M. L. Loomis*, July, 1909); Dump, S. Natick (*K. M. Wiegand & M. Heatley*, June 30, 1908); Lexington, well established near Munroe Station, according to M. P. Cook in *RHODORA*, i. 82, 1899.

S. OFFICINALE L. Moist places, frequent.

VERBENACEAE.

VERBENA.

V. BRACTEOSA Michx. Waste lands, especially near textile mills; Lowell, Malden, Cambridge, S. Boston.

V. hastata L. Swamps and wet places, common throughout.

V. HISPIDA Ruiz & Pavon. About dumps, Cambridge (*A. S. Pease*, Oct. 16, 1908; *W. Deane et al.*, Aug. 28, 1913). A South American waif.

V. OFFICINALIS L. Rowley (*Wm. Oakes*, no date); S. Boston (*C. E. Perkins*, Sept. 27, 1880).

V. STRICTA Vent. Lawrence, waste heap (*M. E. Gutterson*, Aug. 6, 1902; *A. S. Pease*, Sept. 23, 1902).

V. urticaefolia L. Roadsides and moist places, common throughout.

C. H. KNOWLTON }
WALTER DEANE } *Committee on Local Flora.*

CORALLORRHIZA MACULATA RAF.

O. A. FARWELL.

In *RHODORA* for August, 1922, Dr. H. H. Bartlett, of the Botanical Garden, University of Michigan, Ann Arbor, presents a highly interesting paper on the color types of this species, attributing them to anthocyanins and glucosides of the flavonal group and maintaining that these types are genetical entities and not mere variations due to environment, and therefore of greater permanence and categorical value. The specific type is named var. *punicea*; the yellow type var. *flavida* (Peck) as a new combination; and the intermediate